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traffic & transport planners

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18th September 2017

Holly Patrick Level 23, Darling Park Tower 2 201 Sussex Street Sydney NSW 2000

Attention: Holly Patrick, Senior Consultant

Site:Energy from Waste Facility – Honeycomb Drive, Eastern CreekRMS Ref:SYD13/01383/05 (A1762650)Council Ref:SSD 6236Subject:Addendum Letter in Response to Submissions

Dear Holly,

We refer to the proposed Energy from Waste Electricity Generation Plant (EfW Facility) at Eastern Creek and in particular, your request to provide this Addendum Report that deals with the Stage 1 development. This is in response to the Department of Planning and Environment's requirement to delete the Stage 2 development component.

The Stage 1 development as now proposed incorporates the following development parameters:

- Treatment of 552,200 tonnes per annum of residual waste fuels; and
- Removal; of Stage 2 development and reliance on Revised Plans as provided in Attachment 1

Traffic Generation

Original Development (Stages 1 and 2)

The original TIA report prepared by TRAFFIX was premised upon a combined input material source of 1,105,000 tonnes per annum (tpa), as set out in Table 3 of the TIA report. This equated to 500,000 tpa of new material from external sources, with the balance being sourced 'internally' from the Genesis Xero Material Processing Centre, through rerouting or conveyor.

Notwithstanding, the TIA report adopted 1,350 000 tpa for assessment purposes, as this reflected the design capacity of the plant, rather than its operational capacity. This approach resulted in the assessment of a worst case scenario, with a safety margin therefore included due to traffic impacts arising from the operations being overstated.

When account was taken of miscellaneous deliveries and ash removal, the overall operations were predicted to generate the following traffic movements (sum of entry and exit movements:

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Daily Volumes (Trips)

614 vehicle trips (110 car trips and 504 truck trips) being 55 cars and 252 trucks Hourly Volumes (Trips)

65 vehicle trips (37 car trips and 28 truck trips) being 33 cars and 14 trucks

Amended Development (Stage 1 only)

The Stage 1 development as now proposed is based on an operational capacity of 552,500 tpa and a maximum design capacity for 675,000 tpa. If the latter is adopted as per the original TIA (worst case) criterion, then the resultant generation will be as shown in Table 1 below, assuming that the relative proportion of 'internalised' material remains unchanged, with staff also reduced proportionally. This is equivalent to a 50% reduction from the original TIA trip generations.

	Movements (two-way)				
Туре	Car Movement		Truck Movement		
	Daily (veh/day)	Hourly (veh/hr)	Daily (veh/day)	Hourly (veh/hr)	
Staff (Cars)	55	18	-	-	
Input Waste / Fuel Deliveries	-	-	166	7	
Miscellaneous Deliveries	-	-	4	0.2	
Ash Removal	-	-	80	6.7	
Total	55	18	252	14	

Table 11: Revised Generation on External Road Network

Traffic Impacts

The performance of the critical intersection of Wallgrove Road and Wonderland Drive with the addition of the traffic in the original TIA report based on 1,350,000trpa is replicated in Table 2 (from Table 6 in the original TIA report.

Table 2: Intersection Performance Summary – Existing plus Development

Intersection Description	Control Type	Period	Degree of Saturation	Intersection Delay	Level of Service
Wallgrove Road / Wonderland Drive	Signals	AM	0.643	21.0	В
		PM	0.622	20.8	В

Clearly, with a reduction in development traffic volumes to 50% of the level as assessed above (for Stages 1 and 2 combined), the Stage 1 development now sought will result in further improved traffic conditions.



That is, the critical intersection of Wallgrove Road and Wonderland Drive will continue to operate with an unchanged (and acceptable) Level of Service with moderate delays during both peak periods. As such, the traffic impacts of the Stage 1 development can be readily accommodated by the surrounding road network.

It is noted that our letter dated 2nd June 2017 to RMS incorporating revised modelling inputs also showed no change in levels of service at this critical intersection, notwithstanding that it was also based on the original traffic volumes.

On the above basis, that projected increase in traffic generation potential of the proposed development could not be expected to have any unacceptable traffic implications in terms of road network capacity.

Access and Internal Design Aspects

The amended plans incorporated unchanged access arrangements. The internal design arrangements are also

With regard to internal design arrangements, no changes have been made that affect the swept path analysis undertaken in the original traffic impact assessment, so that internal manoeuvrability remains satisfactory and compliant with AS290.1 and AS2890.2.

Parking

The original development identified a potential for up to 37 persons to be on-site at shift changeover periods (i.e. with overlapping). Having regard for the slightly reduced staff levels for Stage 1 and including an allowance for visitors, it is proposed to maintain the original 43 spaces.

These are within three separate car parking areas, including one area with 31 car spaces two other areas each with 6 spaces. Therefore, all future parking demands associated with the proposed development can be readily accommodated on-site, with some potential; for a small surplus that will accommodate any extraordinary (non-design) demands.

Summary

The amended development represents a very significant (50%) reduction in traffic generation on the external road network compared with the original proposal. In circumstances where the original development was supportable on traffic planning grounds, this clearly remains the case. Hence, the amended proposal is supported on traffic planning grounds.

We trust the advice provided in this letter satisfies your requirements, please contact the undersigned should you have any queries or require any further information regarding the above.

Yours faithfully,

traffix

Graham Pindar Director

Encl: Attachment 1 – Revised Plans



Attachment 1

Amended Plans

traffic impact studies | expert witness | local govt. liaison | traffic calming | development advice | parking studies pedestrian studies | traffic control plans | traffic management studies | intersection design | transport studies

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